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HOUSEKEEPERS' CHAT

Friday, May 21, 1937

(FOR BROADCAST USE ONLY)

Subject: "THE STEAM PRESSURE CANNER." Information from the Bureau of Home Economics, United States Department of Agriculture.

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It's canning time again. The time when garden and orchard begin to produce so abundantly that homemakers rally 'round to prevent waste.

Canning needn't be such a chore either. Not in May. There's something about May weather that makes us want to do some canning. We get such solid satisfaction from knowing that we've saved that garden or orchard surplus. And it's mighty pleasant to see our cans filled and lined up on the kitchen table ready to be carried off to the storage room. Cans of rhubarb, of bright asparagus and green peas.

And speaking of peas and asparagus brings me to this morning's subject--the canning of the non-acid vegetables with the steam pressure canner. If it's vegetables you're canning, you certainly need a steam pressure canner. So long as you are handling fruits or tomatoes, the hot water bath method of canning is fine. But when it comes to most of the vegetable canning, the only safe method is by steam pressure.

You see, heat penetrates very slowly into the interior of containers. In the hot water bath processing, the vegetables in the center of the container may not even start to boil until 90 minutes or more after the water outside the jar did. Your canning instructions may say "Process 90 minutes," but that means boil 90 minutes. And in this case you'd have to keep your container in the hot water bath 180 minutes--or 3 hours.

And even 3 hours boiling in a hot water bath won't kill some bacteria. Bacteriologists say that it takes 6 hours of such treatment to destroy certain stubborn bacteria. But a steam pressure canner makes it possible to force temperatures high enough to penetrate containers quickly and destroy all dangerous bacteria in fairly short order.

These steam pressure canners are really economy in the long run. They eliminate waste from spoilage for one thing. Commercial canners would be forced out of business if they had the percentage of spoilage that many home canners have.

Washington State College recently did quite an interesting piece of research on the cost of home canning. They showed that buying special equipment such as the pressure cooker adds very little to the cost per container. Their figures are for homes where fairly large quantities of food are canned, of course.



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But when you consider how long a good pressure canner lasts, and divide the initial cost by the years you use the equipment, and consider the hundreds, maybe thousands of cans you process in it, the cost price certainly does shrink. Especially when you consider the jars of vegetables which would have been lost by spoilage if canned by the old method.

Home economists consider the 18 to 30 quart pressure canners the best sizes for home use. The smaller ones aren't intended for canning in the first place. They're for meal cooking. If you try to use one of these small ones for canning you'll find that it's almost impossible to hold them steady at any given pressure level. Pressure in small canners fluctuates. And if you are using glass jars in the processing, that means you're having liquid drawn out of the jars and therefore you're losing some food value.

These pressure canners are made either of aluminum or steel. And both types are good. What you want is a strongly built canner with the top held on tightly enough that there can be no leakage of steam. Some canners have tops held on by lugs, others by clamps, and still others by a band. Any one of the 3 types is satisfactory.

If you already have a pressure canner, it would be wise to give it a good going over to see that it is in perfect working condition. Is the opening of the pressure gage clean? Is the safety valve in good working order? Is the pressure gage registering accurately?

The quickest way to test your pressure gage is by using a master gage. Unscrew the petcock or safety valve from the lid of the canner and screw in a master gage. You can then run up the pressure gradually and check your gage with the master one.

If you haven't a master gage available, you could test the accuracy of your pressure gage by using a maximum thermometer. A maximum thermometer is much less expensive than a master gage. It runs around \$3. You and a neighbor might buy one together.

You know that when the pressure gage on your canner registers 10 pounds, the temperature inside should be 240 degrees. And that 15 pounds pressure should mean 250 degrees. That is, at altitudes up to 2,000 feet. So you can use this maximum thermometer for 2 or 3 tests at different pressures. And if the gage is more than 3 pounds off you really ought to have a new gage put in. Otherwise you may have your vegetables overcooked or not sufficiently processed to make them safe. For instance, if the maximum thermometer registers 250 degrees but the pressure gage instead of showing 15 pounds pressure, registers only 10 or 11 pounds, or on the other hand registers too high -- above 18 pounds.

To summarize, if you are canning non-acid vegetables, use a steam pressure canner. And if your canner has been used in previous seasons inspect it carefully before you start canning. Test the accuracy of the pressure gage, either against a master gage or with a maximum thermometer.

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